

Corrective Action Plan (CAP):

Based on results of [PPR](#) or [ACM](#), if the facility decides to implement corrective measures, the facility should include a *qualitative* discussion regarding the residual risk after remedy completion and the short-term risk during implementation. Among other requirements, the CAP (9VAC20-81-260.D.1.a.(1)) should discuss:

- (a) Magnitude of reduction of existing risks
- (b) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy
- (d) Short-term risk to community, workers.... associated with excavation, transportation and redisposal or containment.

In many instances, there may be an overlap between the risk assessment conducted for the [ACM](#) and the CAP. The selected corrective measure/remedy should be protective of human health and the environment and should be able to achieve GPS at all points in the plume at or beyond facility boundary (9VAC20-80-260.H).

For facilities that have permanent structures on-site and/or if the contamination has migrated beyond the facility boundary a potential of vapor intrusion exists. Therefore vapor intrusion pathway may also need to be discussed in the risk assessment in addition to direct exposure to groundwater via ingestion, dermal and inhalation (volatiles and some semi-volatiles).

If not already included as part of the [ACM](#), risk assessment for active remedy (e.g., SVE, P & T) should be performed after:

- DEQ approval (from Regional Office) that appropriate monitoring and sentinel well (on site and/or off-site) network is acceptable,
- there is no discharge to surface water (see special note below about surface water), and
- analytical data have detection limit(s) at or lower than the GPS.

When the plume has migrated beyond facility boundary and MNA is the selected remedy, a quantitative risk assessment including all detected constituents must be performed. This risk assessment may be included in [ACM](#). If not already included in the [ACM](#), this risk assessment for off-site MNA should be performed after:

- DEQ approval (from Regional Office) that appropriate off-site monitoring and sentinel well network is accepted,
- MNA has been approved by the DEQ (from Regional office) and is acceptable to the property owner,
- there are no private wells (In cases where off-site landowners utilize groundwater wells as a potable water supply, but these offsite wells have not been tested, the regional office may request the facility to evaluate relative potential risk for exposure of offsite receptors) and/or no discharge to surface water,
- the plume is not expanding, and
- analytical data have detection limit(s) at or lower than the GPS.

Further information regarding MNA requirements can be found at:

<http://www.epa.gov/nrmrl/pubs/600r04027.html> and

<http://www.epa.gov/oust/directiv/d9200417.pdf>. Please note that these documents may be updated by EPA at any time therefore the facility should to periodically check with EPA for the most recent guidance associated with corrective action (including MNA use).

State Water Law (62.1 44.5) and Water Regulation (9 VAC 25-260-20.A; 9 VAC 25-31-50.A; 9 VAC 25-32-30.B.1.b) prohibit any constituent discharge to State Waters unless such discharge has been authorized by Permit. Therefore the facility should not submit an ecological risk assessment unless specifically requested by DEQ. Please refer to guidance for 'Surface Water Impacts at Solid Waste Landfills' dated February 22, 2008 at

<http://townhall.virginia.gov/L/ViewGDoc.cfm?gdid=3643>.